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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER	
THOMAS, BRADLEY H	

ART UNIT	PAPER NUMBER
2835	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,618	FURSICH ET AL.	
	Examiner	Art Unit	
	BRADLEY H. THOMAS	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 April 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 April 2010* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/12/10 has been entered. The new drawing is accepted (as well as the corresponding specification amendments).

Specification

2. The disclosure is objected to because of the following informalities: in [0019] on page 5, line 12, "be" should be changed to "been".

Appropriate correction is required.

Claim Objections

3. Claims 13, 20, 30 and 32 are objected to because of the following informalities:

Regarding claim 13, in line 5, it is believed that "one" should be inserted after the first occurrence of the word "least" (e.g. "…at least one aperture"…). Furthermore, the last paragraph of claim 13 recites "wherein the first hood is only releasable from the cover portion after the at least one attachment mechanism and at least one clip connection mechanism are interlocked by use of a mechanical tool". However, it is the

Examiner's understanding (from [0019] of the specification) that the first hood and cover portion are interlocked merely by inserting tabs 9 in connections 39, and that the first hood is releasable from the cover portion after the at least one attachment mechanism and at least one clip connection mechanism are ***unlocked*** by use of a mechanical tool. Thus, it appears the claim is opposite to the support in the specification, since the claim teaches the use of a mechanical tool to interlock the elements, while the disclosure teaches using a tool to release (or unlock) the elements (e.g. "the clip connection 39 can be released again by the…personnel…using a tool such as a screwdriver"). Thus, it is unclear if the "mechanical tool" of the claim is intended for interlocking or unlocking. It appears that tabs 9 are just inserted and thus interlocked into 39 without use of a toll, however, removing tabs 9 from 39 requires a tool, for instance the tip of a screwdriver, to press the tabs out of the slot 39 thereby releasing the hood and cover from one another. Applicant is suggested to clarify the claim to avoid such confusion in light of the disclosure.

Regarding claim 20, line 1, it is believed that "each aperture" should be changed to "the at least one aperture" to remain consistent with claims 13 and 19.

Claim 30 should be reviewed in terms of "tool"/"mechanical tool" (e.g. in light of the amendment to claim 13)

Regarding claim 32, the claim is believed to be redundant partly over itself and mostly in view of claim 13. Claim 32 recites "wherein the at least one first plug-in device is comprised of a first plug-in device that is comprised of an extension circuit board". The first plug-in device from claim 13 is "…sized and configured to connect to a first

extension circuit board…", thus it is unclear how in claim 32 the first plug-in device comprises an extension board. The disclosure shows that the first plug-in device is not an extension board, it is a receptacle that receives an extension board. Furthermore, It is also unclear if the extension board in claim 32 is the same board as claimed in claim 13, or a different board. Applicant is suggested to thoroughly review claim 32. As best understood, claim 32 will be interpreted in the same manner as claim 13, and thus deemed to not add any significant subject matter since it does not appear to further specify or describe the elements from claim 13.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 13-19, 21-23, 26-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumer et al. (US 2003/0073338) in view of Bhargava (US 4716499).

Regarding independent claim 13, as best understood, Sumer et al. teaches a housing (100) for receiving a printed circuit board (146) for use in a communication system, comprising:

- a connection area (e.g. 103) configured to be at least partially accessible (e.g. via 108, etc.) from outside of the housing (100) (see Fig. 1, 108);
- a housing cover (comprising 101 and 102) comprised of a first hood (102) and a cover portion (101), the first hood (102) having at least [one] aperture (e.g. at 108, see Fig. 1) and at least one attachment mechanism (104), the cover portion (101) having at least one clip connection mechanism (106) sized and configured to releasably retain the at least one attachment mechanism (104) of the first hood (102) (see [0034]);
- a base housing part (144); and
- a printed circuit board (146) arranged between the base housing part (144) and the cover portion (101), the printed circuit board (146) having an extension area (see Fig. 10 near characters 149 and 147), the extension area (see Fig. 10) comprised of at least one first plug-in device (e.g. 122) sized and configured to connect to a first extension printed circuit board (e.g. 148 via 147, 149, etc.) (see [0043-0044);
- the cover portion (101) configured to releasably attach (e.g. via fasteners, see Fig. 8) to the base housing part (144) and configured to clamp (upon assembly) at least a portion of the printed circuit board (146) against the base housing part (144) when the cover portion (101) is attached to the base housing part (144) (see [0041-0044]);

except for:

- wherein the first hood is only releasable from the cover portion after the at least one attachment mechanism and at least one clip connection mechanism are interlocked by use of a mechanical tool.

Sumer et al. teaches that "Cover 102 includes a…latch 104…that enables cover 102 to be opened without a tool" and "To open compartment 103, a user engages…latch 104 with a finger…". However, just because Sumer et al. states that cover 102 can be opened without a tool via a finger does not preclude a tool from being used to pry the latch 104 from the slot 106 (see Figs. 14-16). As such, Bhargava teaches a similar circuit board assembly and that it is known to use a screwdriver (95) as a prying tool to separate members of the assembly (e.g. for removal, etc.) (see col. 6, lines 10-20 and Fig. 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a screwdriver as a prying tool to separate parts or an assembly, since the tip of the screwdriver could have been used to pry and force the parts apart. There is nothing in Sumer et al. that restricts a tool from being used. For instance, if a user had an injured finger(s), they could have easily used a screwdriver to pry part 104 from 106, as shown in Figs. 14-16 of Sumer et al. Or they could have simply used a screwdriver since the metal of the screwdriver is stronger than their finger and allows for more force to be applied. Plus the tip of a screwdriver is slimmer and thinner than a finger tip and is conducive to be lodged into tight spaces to pry things apart. Sumer et al. does not explicitly require only using a finger, it is merely stated that the cover(s) ***can*** be opened without a tool (e.g. via a finger). Thus, it would have been obvious to one having ordinary skill in the art to use a mechanical tool such as a

screwdriver to assist in prying parts of an assembly toward/away form one another to improve/aid the ability to remove and/or insert the parts.

Regarding claim 14, Sumer et al. alone teaches:

- a second hood (110) adapted to be releasably connected to the cover portion (101), wherein the second hood (110) (partly) covers the connection area (103) when the second hood (110) is connected to the cover portion (101) (see [0035]).

Regarding claims 15-16, Sumer et al. teaches:

- the base housing part (144) includes a guide (e.g. holes in 144) and a support edge (see Figs. 8-10),
- wherein the guide (see Fig. 8) guides (via screws/fasteners) the printed circuit board (146) and the cover portion (101) portion during assembly, and
- wherein the printed circuit board (146) is arranged between the support edge (see Fig. 8) and the cover portion (101) (see [0046]).

Regarding claims 17-18, Sumer et al. alone teaches:

- the printed circuit board (146) includes a second plug-in device (e.g. 126) that is sized and configured to establish an electrical connection with a second extension printed circuit board (e.g. 150) (see [0041-0044]).

Regarding claim 19, Sumer et al. alone teaches:

- the at least one aperture (at 108, see Fig. 1) is arranged to face the connection area (103) (see Figs. 1-2).

Regarding claim 21, Sumer et al. alone teaches:

- a part selected from the group consisting of the cover portion (101), the first hood (102), and the second hood (110) is manufactured by injection molding (see [0035]).

Regarding claims 22-23, Sumer et al. teaches:

- a part selected from the group consisting of the cover portion (101), the first hood (102), and the second hood (110) is manufactured from a polymer plastic (see [0035-0037]);

except for:

- the mechanical tool is a screwdriver.

However, Bhargava teaches a similar circuit board assembly and that it is known to use a screwdriver (95) as a prying tool to separate members of the assembly (e.g. for removal, etc.) (see col. 6, lines 10-20 and Fig. 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a screwdriver as a prying tool to separate parts or an assembly, since the tip of the screwdriver could have been used to pry and force the parts apart. There is nothing in Sumer et al. that restricts a tool from being used. For instance, if a user had an injured

finger(s), they could have easily used a screwdriver to pry part 104 from 106, as shown in Figs. 14-16 of Sumer et al. Sumer et al. does not explicitly require only using a finger, it is merely stated that the cover(s) ***can*** be opened without a tool (e.g. via a finger). Thus, it would have been obvious to one having ordinary skill in the art to use a mechanical tool such as a screwdriver to assist in prying parts of an assembly toward/away form one another to improve/aid the ability to remove and/or insert the parts.

Regarding claim 26, Sumer et al. alone teaches:

- the first hood (102) and the second hood (110) adjoin side wall sections of the cover portion (101) in an assembled state (see Figs. 1-2 and 5).

Regarding claim 27, Sumer et al. alone teaches:

- the first hood (102), the second hood (110) and the side wall sections form a continuous surface when interconnected to the cover portion (101) (see Figs. 1-2 and 5).

Regarding claim 28, Sumer et al. alone teaches:

- the base housing part (144) has at least one keyhole-shaped cutout for wall mounting (see Fig. 8).

Regarding claim 29, Sumer et al. alone teaches:

- the base housing part (144) is further comprised of at least one guide (see Fig. 8).

Regarding claim 32, as best understood, Sumer et al. alone teaches:

- the at least one first plug-in device (e.g. 122) is comprised of a first plug-in device (122) that is comprised of an extension circuit board (e.g. 148) (see [0041-0044]).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sumer et al. (US 2003/0073338) taken with Bhargava (US 4716499) as applied to claims 13 and 19 above, and further in view of Arnett et al. (US 6,078,661).

Regarding claim 20, as best understood, Sumer et al. taken with Bhargava discloses the claimed invention except for:

- each aperture is a generally rectangular push through opening.

Sumer et al. shows that the aperture is generally round (half circle) shape. However, Arnett et al. teaches that it is known to have a network interface device with a cover (12) that has generally rectangular openings (40, 42) (see Fig. 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used rectangular openings, since it has been held that the selection of a particular shape is an obvious design choice. See *In re Dailey*, 357 F.2d669, 149 USPQ 47 (CCPA 1966). Such a shape and configuration is a known type of opening in the art,

and would have yielded predictable results (i.e. desired entry/exit or wiring/cabling) and would have been obvious to try to a person of ordinary skill at the time of the invention with reasonable expectation of success. See *KSR v. Teleflex*, 82 USPQ2d 1385.

7. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumer et al. (US 2003/0073338) taken with Bhargava (US 4716499) as applied to claims 13, 14 and 16-17 above, and further in view of Krispin et al. (US 2002/0050771).

Regarding claims 24-25, Sumer et al. taken with Bhargava discloses the claimed invention except for:

- the first hood and the second hood are each curved in a convex shape in a central area running concentrically to a center longitudinal axis.

However, Krispin et al. teaches that it is known to form telecommunications housing in a convex shape (see Fig. 1-4). It would have been obvious to one having ordinary skill in the art to have use a convex shape for a telecommunications housing, since such a modification would have allowed for precipitation such as rain and snow to roll down the housing (during outside use of the housing) or any other liquid spill (e.g. during indoor use). The convex shape would have naturally guided precipitation off of the surface of the housing, thereby preventing said precipitation from significantly entering the housing (i.e. avoid and pooling of water, etc.). In regards to the convex shape of the housing, the selection of a particular shape is an obvious design choice. See *In re Dailey*, 357 F.2d669, 149 USPQ 47 (CCPA 1966). As mentioned above, it would have been

obvious to one having ordinary skill in the art to have been aware of the benefits of a convex shape (either for benefits as described above in regards to resisting penetration) or for improved manufacturing (see [0011] of Krispin et al.).

8. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumer et al. (US 2003/0073338) taken with Bhargava (US 4716499) as applied to claims 13 and 14 above, and further in view of White (US 4,749,359).

Regarding claims 30 (as best understood) and 31, Sumer et al. taken with Bhargava discloses the claimed invention except for:

- the second hood has at least one twist lock and at least one snap-in hook, each snap-in hook adjacent a respective twist lock and wherein the second hood is releasable from the cover portion without use of a tool;
- the at least one twist lock and at least one snap-in hook are configured to releasably attach to the cover portion when at least a portion of the at least one snap-in hook is inserted into at least one opening formed in the cover portion.

Sumer et al. teaches that the second hood (110) has a fastener (120) that attaches to an opening (121) in the cover portion (101), but does not explicitly teach a twist lock and at least one snap-in hook. However, White teaches an interface device that uses a twist lock (30), opening (33) and a hook (24) to secure a cover (10) to a body (15) (see Figs. 5-6). It would have been obvious to one having ordinary skill in the housing art at the time the invention was made to have used a twist lock and hook configuration to secure

two parts together, since such a modification would have allowed for a more secure attachment of the parts via the dependent relationship of the lock and hook. Although White teaches a screw (25) securing hook 24, it would have been obvious to forgo a locking screw to avoid the need for a tool. A lock and hook fastener combination is a known type of fastener combination, and would have yielded predictable results (i.e. desired latching/attachment of two parts) and would have been obvious to try to a person of ordinary skill at the time of the invention with reasonable expectation of success. See *KSR v. Teleflex*, 82 USPQ2d 1385.

Response to Arguments

9. Applicant's arguments with respect to claims 13-32 have been considered but are moot in view of the new ground(s) of rejection. A new reference to Bhargava was used in combination with Sumer et al. to teach using a screwdriver tool to pry elements of an assembly apart from one another. However, since Sumer et al. was re-used, pertinent arguments stemming from the (previous) use of Sumer et al. will be addressed.

Regarding Applicant's argument on page 14 concerning the Examiner's interpretation of the claimed "plug-in device", the Examiner respectfully submits that a new element(s) (e.g. 122 and/or 126) of Sumer et al. has been used to teach the claimed "plug-in device". However, the Examiner would like to note that Applicant's claim language with regards to the "plug-in device" is very broad. For instance, claim 13 recites "...al least one first plug-in device sized and configured to connect to a first extension printed circuit board". Contrary to Applicant's arguments on page 14, the

claim language does not accurately reflect the description in the specification. Applicant notes the specification states “Extension circuit boards are plugged into the plug-in devices…”. The claim language does not require such a relationship. The claim language is broad, and only requires a plug-in device that is "sized and configured to connect to" another board. The portion “sized and configured to connect” is a relatively weightless recitation in terms of patentability, since any two parts if an assembly that cooperate with each other are generally “sized and configured” to “connect” to one another. Plus “connect” can be interpreted as to electrically connect. Sumer et al. clearly teaches in [0044] that “…connectors 122 [and] jacks 126…are mounted on…board 146 by soldering” and “Plug 147 is connected to…board 148, which is in turn connected to plug 149. Plug `149 is connected to jack 126a. Jacks 126 are connected to connectors 122..." and finally that “Circuit board 146 serves as interface between…equipment connected to…122 and…126 and…equipment…via…boards 148 and 150…”. Thus it is believed that the applied elements of Sumer et al. read on the current claim language. Applicant is suggested to further claim the relationship between the plug-in device and the extension board, for example as described in [0018] of the instant specification. Being “sized and configured to connect” to a board does not mean the board is plugged into a plug-in device. Such a recitation has to be present in the claims to make the relationship true. This also applies to Applicant's argument's concerning claims 17-18 on page 15.

In general, Applicant is suggested to further claim the structural relationship (e.g. location, connection points, etc.) between the first hood, cover portion and second hood,

for instance as described in instant specification [0018-0019] and [0022], and also explore the devices 24 located on the end of boards 18 that fits in aperture 14 as shown in Figs. 2-3 and specification [0018].

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional 13 references (e.g. Perna et al. (US 4213013)…Cowan et al. (US 6714647)) cited on the PTO-892 form teach electronics assemblies with cover portions:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRADLEY H. THOMAS whose telephone number is (571)272-9089. The examiner can normally be reached on 7:00am - 3:30pm (Eastern).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash N. Gandhi can be reached on 571-272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BHT
/Bradley H. Thomas/
Examiner, Art Unit 2835